

点读版

5A

学科·英语整合课程

Light Up 科学 Science

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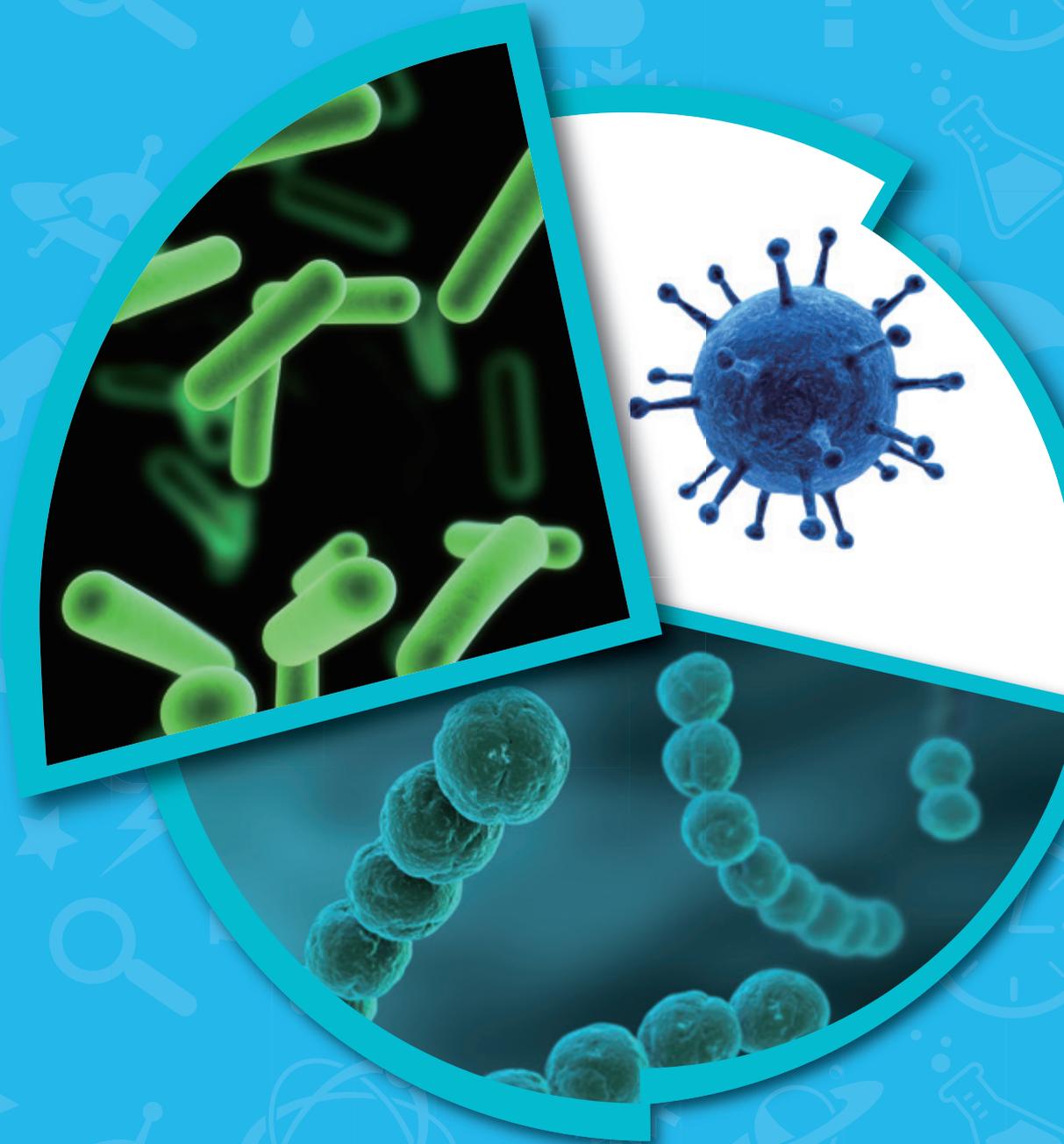
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UNIT 3

MICROBES



What tiny things live on our skin?

What tiny things live in our food?

Let's find out if they are bad or good.



Lesson 1

Kinds of Microbes

Why should Tom wash his hands before eating?



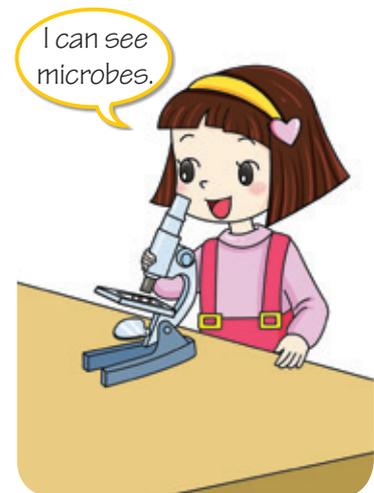
Key Word

microbe



Activity 1

Microbes are very small living things. We can use a microscope to see microbes.

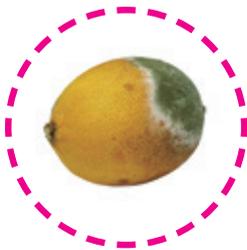


Where can you find microbes? Circle the places.



Activity 2

Which microbes are good? Which microbes are bad? Draw lines.



good microbes



bad microbes

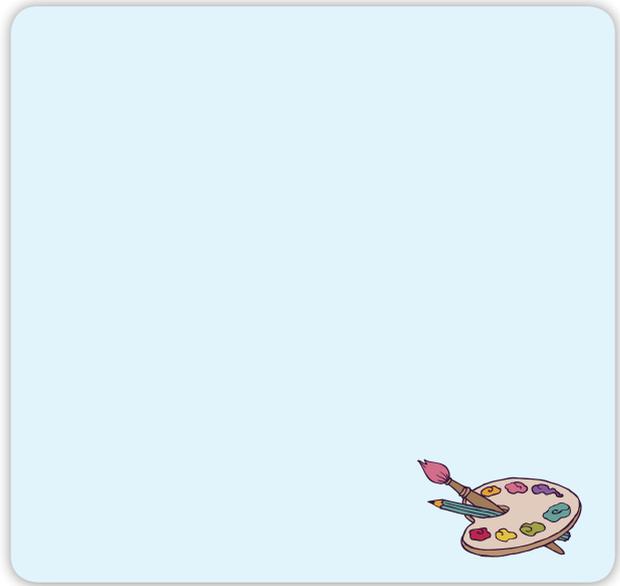


Activity 3

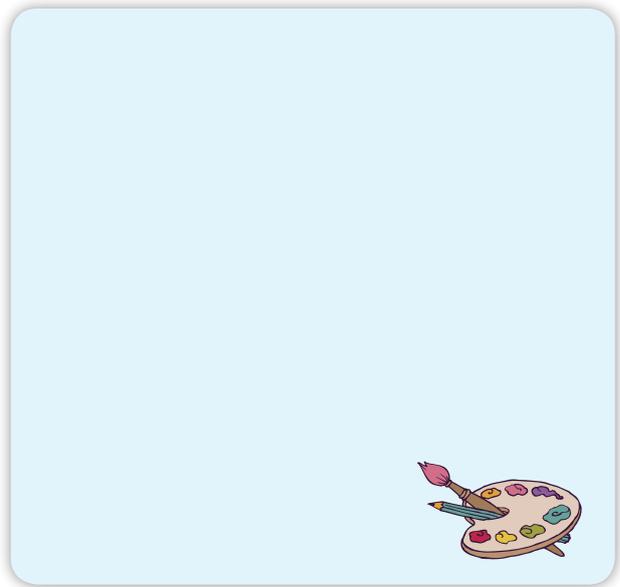
If we do not do these things, what will happen? Draw pictures.



Wash your hands before eating.



Put food into the fridge.



Activity 4

What do you know about microbes? Sing the song.

The Microbe Song

Molly is a microbe too small to see.
Molly and her microbes, feeding on the meat.
If Molly and her microbes are given some warm meat,
Then this warm meat will not be good to eat.

Marty is a microbe in a pack of yeast.
Marty and his microbes are good for us to eat.
For Marty and his microbes help the bread to rise,
There are friendly microbes.
Now that is a surprise!

Now I Know ...

Microbes are very small living things. I can use a microscope to see them.

Some microbes are good. Some microbes are bad.

How I Know ...

- I did an experiment.
- I observed microbes.
- I classified microbes.



Find Out More!

How can microbes cause diseases? A cough or sneeze can spread microbes through the air for several metres. What should Bob do? Draw in the circle.





Lesson 2 Yeast

Why does the bread look so fluffy?



Key Words

cold
sugar
warm
yeast



Activity 1

Use a hand lens to look at the dry yeast. Can you see living things?



Add some sugar to a cup of warm water. Then add some dry yeast. Stir and wait. What can you see?



+



+



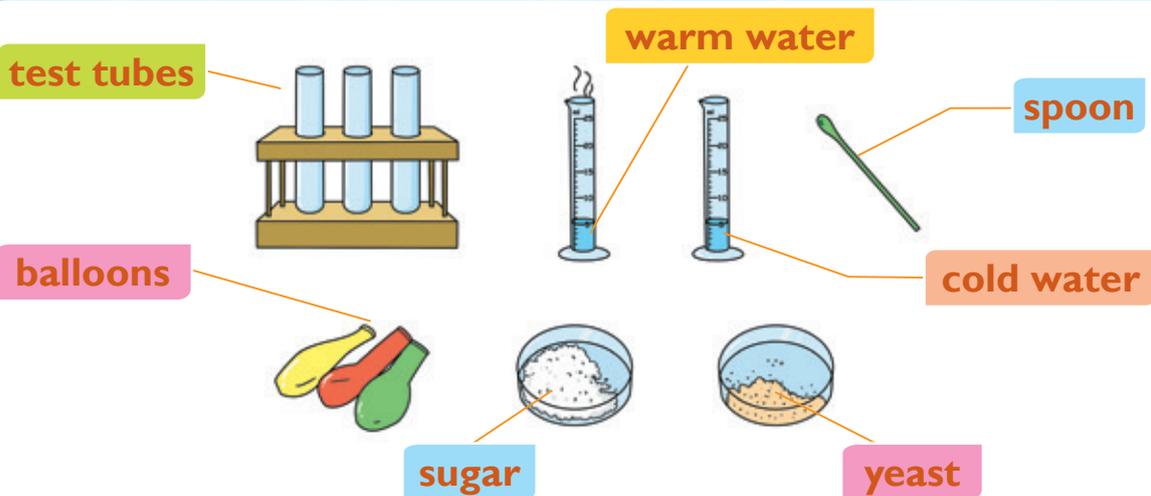


Yeast is a microbe. It uses sugar to grow. When yeast grows, it makes a gas.

Activity 2

Does yeast need water to grow well?

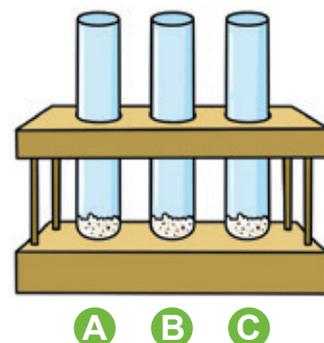
You need



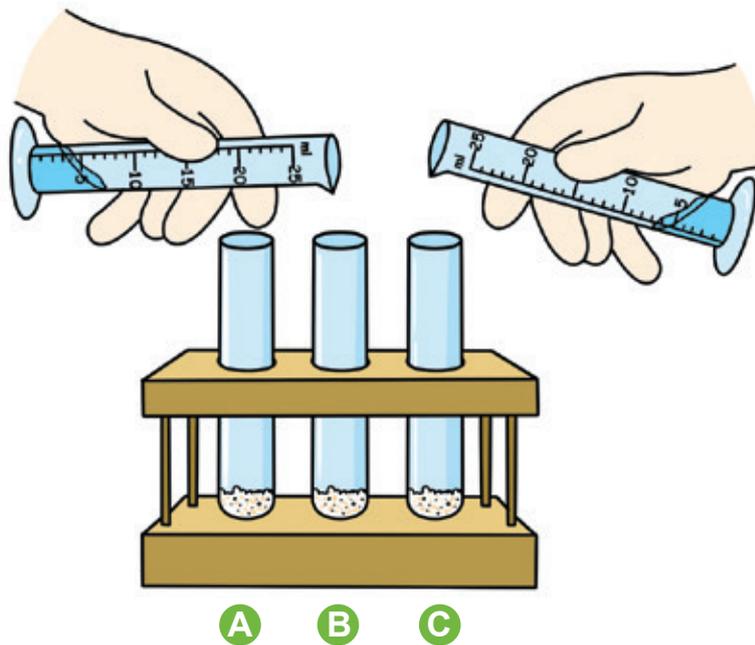
What to do

1

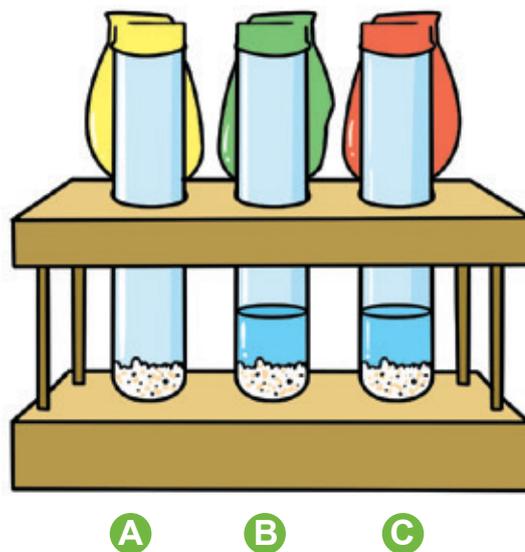
Add some sugar and yeast to the three test tubes. Label them A, B and C.



- 2 Add 5 ml of warm water to B. Add 5 ml of cold water to C. Stir.

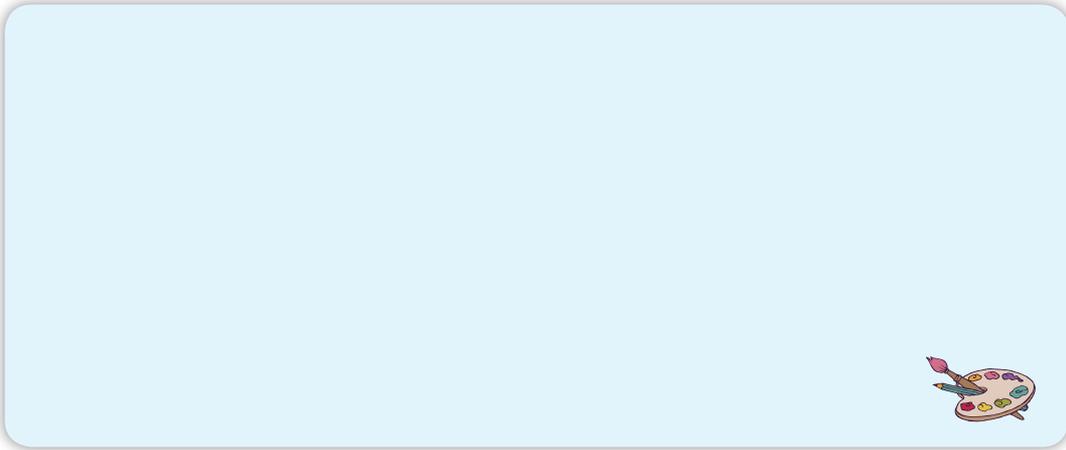


- 3 Put the balloons over the three tubes. Wait for 30 minutes.



Results

What can you see after 30 minutes? Draw a picture.



Conclusion

Yeast (needs / does not need) water to grow well.
Yeast grows better in (cold / warm) water.

Now I Know ...

Yeast is a microbe. When it grows, it makes a gas.
Yeast needs sugar and warm water to grow well.

How I Know ...

- I did a fair test.
- I saw yeast.
- I made a model.





Lesson 3

Microbes and Food

Why do you add dry yeast?



Key Words

bread
food
microbe
rise
yeast



Activity 1

How can you make bread?

You need



What to do

- 1 Add the yeast to some warm water and sugar. Stir and wait for 5 minutes.



2



Add the sugar water with yeast to the flour. Mix to make a dough.

3

Knead the dough.



4



Leave the dough in a warm place for 20 minutes. What happens?



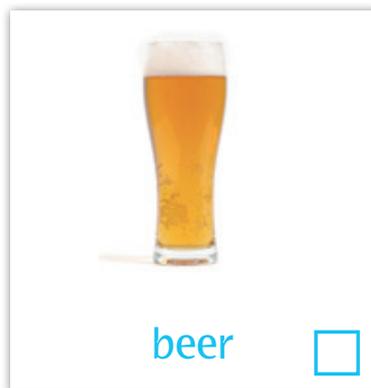
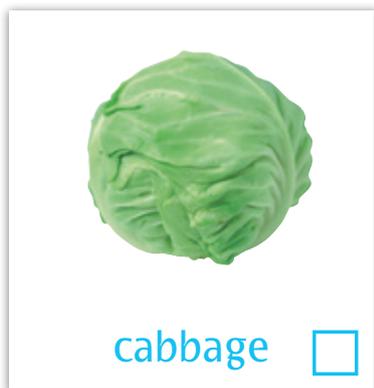
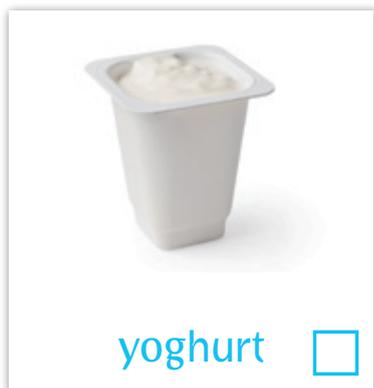
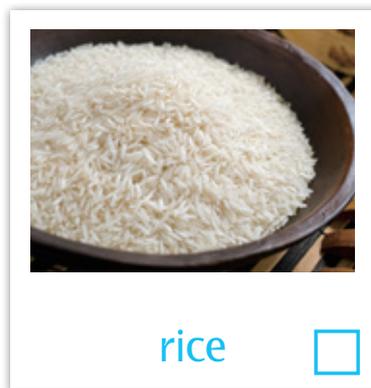
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Bake your bread dough in an oven.



Activity 2

Which foods are made with microbes? Tick (✓).



Now I Know ...

Yeast helps bread to rise.
Some food is made with microbes.

How I Know ...

- I made bread.
- I classified food.
- I did an experiment.



Find Out More!

Microbes can make food go bad. Where are the microbes from? What did they need to grow?

1



Put a piece of bread into a plastic bag.

2



Add some water.

3



Seal the bag. Observe the bread each day. What can you see?



Throw the bag into the rubbish bin. Do not open it.



Unit Review



1 Why must Tom wash his hands before eating? Tick (✓).



- Because his mother told him to.
- Because water makes food taste good.
- Because there are microbes on his hands.
- Because there are microbes in his food.

2 Yeast is a microbe. What is yeast used for? Tick (✓).



3 Mary's mother wants to make bread. What will she need?
Tick (✓).



oven



salt



flour



meat



water



jam



sugar



yeast

Glossary



Unit 1 Seeds

disperse	传播
germinate	发芽
grow	种植
heat	热量
light	光
sand	沙子
seed	种子
seedling	幼苗
soil	土壤
water	水

Unit 2 Sound

ear protector	护耳器
gas	气体
high	高的
liquid	液体
low	低的
muffle	使声音减弱
pitch	音调
solid	固体
sound	声音
travel	传播
vibration	振动

Unit 3 Microbes

bread	面包
cold	冷的
food	食物
microbe	微生物
rise	膨胀
sugar	糖
warm	温暖的
yeast	酵母

Unit 4 Earth, Moon and Sun

day	天
earth	地球
galaxy	星系
moon	月亮
moon's phases	月相
orbit	轨道
planet	行星
rotation	自转
shine	照射
solar system	太阳系
star	恒星
sun	太阳
year	年

Skills



Observe

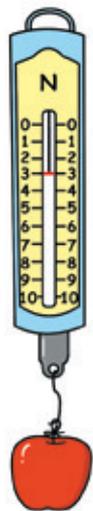
I can see very small living things!



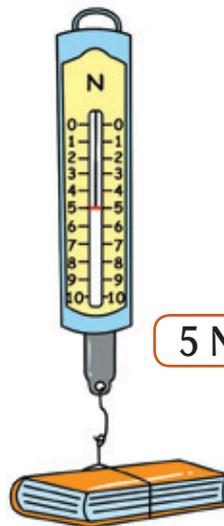
They are microbes.

When you study something closely, you are observing. You can use a tool such as a microscope.

Measure



3 N



5 N

A force meter is a measuring instrument. When you use a measuring instrument, you are measuring. A measurement always has a number and a unit.

Compare

Some of my seedlings are only 2 cm tall.



My seedlings are tall and strong.



If you have two or more objects, you can observe or measure them to compare them.

Classify



Key

Does it have a backbone?

Yes

Vertebrate

No

Invertebrate

In science, we use keys to classify things.

Sequence



small



big

Take some objects. Choose a feature. Put the objects in order. This is a sequence.

Predict



I think my seedlings will grow better, because they have water, heat and light.

When you say what you think will happen, you are predicting.

Experiment



Observe and measure something. Think about your results. Did you learn something about science? You are experimenting.

Fair test



If you want to compare results, you should do a fair test. How do you make a fair test? Change only one condition. Keep the other conditions the same.

A bright future with

Light Up Science

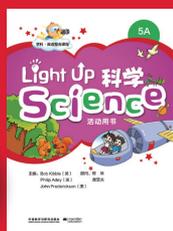


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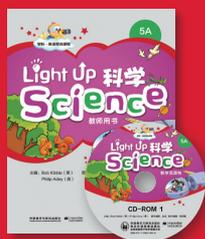
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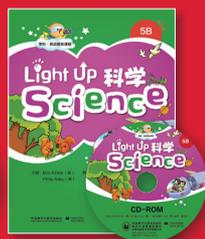
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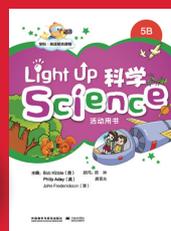
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